

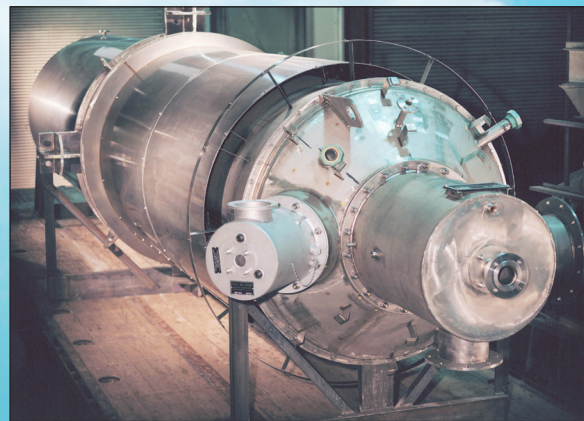
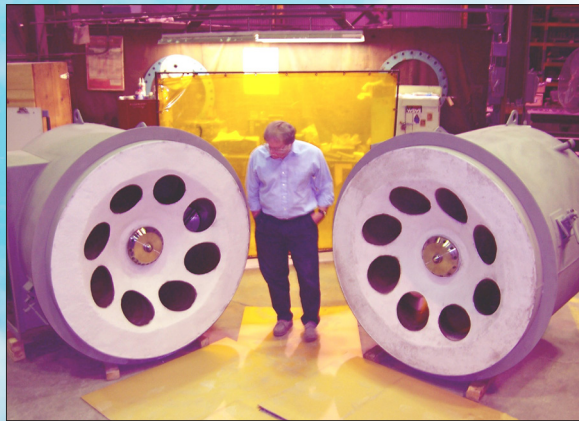
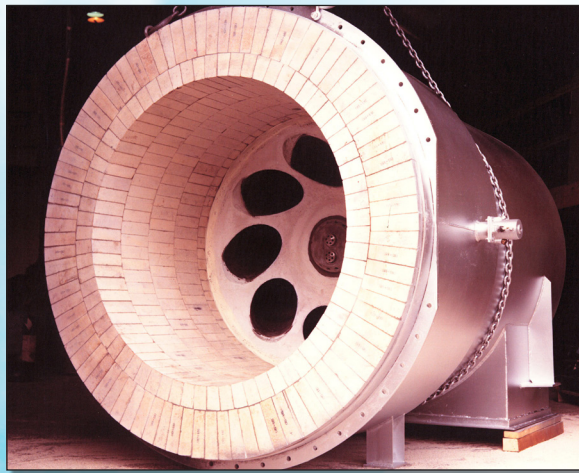
BURNERS AND COMBUSTORS



PCC high intensity, multi-fuel, low NOx burners and combustors have set the standard for quality and reliability. They are available in a wide range of standard sizes, or custom-engineered to meet your special needs.

OGH burners and combustors burn both heavy and light fuel oils and high BTU gases separately or in combination. They can be fired horizontally or vertically, and upwards or downwards. Complete, stable combustion is achieved using minimal energy combined with the “staged air” principle. Low discharge of solids and low CO are essential features of both burners and combustors. Turndown up to 10:1 is available for most gaseous fuels and up to 4:1 for most liquid fuels.

The PCC burner and combustor employs an oil atomizer when firing a liquid. The atomizer produces a well-defined cone of finely atomized oil using moderate oil pressure combined with compressed air or steam. A gas distribution ring feeds the jets, which injects gas through the port block. When gas is the only fuel, a central gas gun replaces the combination oil atomizer and gas gun assembly.



PCC Low NOx Burners, Multi-fuel Burners, and OGH Burners and Combustors are suitable for a variety of industrial applications:

- Air Heaters
- Dryers
- Ovens
- Fluid Bed Start Up
- Furnaces
- Kilns
- Incinerators

PROCESS COMBUSTION CORPORATION

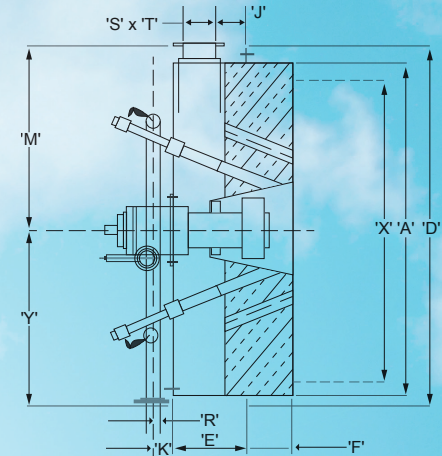
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Oxidizers from people who know and care about providing environmental compliance with reliability

OGH Burner

The OGH burner provides the means for atomizing liquid fuel(s), their introduction and distribution, together with gaseous fuel(s), into the combustion zone. There, two stages of combustion air are also admitted and distributed through the burner port block to produce rapid and efficient mixing of the fuel and air. Stable ignition of the flame is well managed. The burner also provides locations for a pilot burner, flame scanner and other associated ancillary items. The use of staged air gives the OGH burner greater stability and higher turndown capability over a wider range of excess air than most conventional forced draft burners.

The standard burner accepts preheated combustion air up to 575°F (300°C). Higher temperatures, up to 850°F (450°C), can be used on burners with a heat resistant steel plenum. An insulating inner lining may be added to the plenum if required for safety or economy.



| BURNER SIZE AND TYPE | HEAT RELEASE Btu/Hr x 10 ⁶ | AIR FLOW (scfm) | FLAME LENGTH AT 70% EXCESS AIR (ft) | | DIMENSIONS - INCHES | | | | | | | | | | | | | |
|----------------------|--|--------------------|--|-----|---------------------|-----|----|----|----|----|----|----|----|----|----|----|--|--|
| | | | OIL | GAS | A | D | E | F | J | K | M | R | S | T | X | Y | | |
| OGH 1 | 4 | 1260 | 6.5 | 3.5 | 27 | 30 | 7 | 22 | 4 | 5 | 16 | 3 | 3 | 22 | 20 | 15 | | |
| OGH 2 | 7 | 2200 | 6.5 | 4.0 | 32 | 36 | 9 | 2 | 4 | 7 | 20 | 3 | 4 | 26 | 26 | 17 | | |
| OGH 3 | 12 | 3780 | 6.5 | 4.0 | 40 | 44 | 12 | 2 | 6 | 9 | 24 | 5 | 5 | 34 | 34 | 22 | | |
| OGH 4 | 16 | 5040 | 6.5 | 4.0 | 46 | 52 | 13 | 3 | 6 | 9 | 27 | 5 | 6 | 38 | 39 | 25 | | |
| OGH 5 | 24 | 7560 | 8.0 | 4.5 | 53 | 59 | 16 | 3 | 8 | 11 | 31 | 6 | 8 | 45 | 44 | 32 | | |
| OGH 6 | 32 | 10080 | 8.0 | 4.5 | 60 | 66 | 19 | 4 | 9 | 14 | 34 | 8 | 9 | 51 | 51 | 36 | | |
| OGH 7 | 50 | 15750 | 8.0 | 4.5 | 73 | 79 | 22 | 4 | 9 | 14 | 40 | 8 | 12 | 62 | 63 | 43 | | |
| OGH 8 | 75 | 23600 | 8.0 | 4.5 | 88 | 94 | 26 | 4 | 11 | 14 | 48 | 10 | 14 | 75 | 79 | 52 | | |
| OGH 9 | 100 | 31500 | 8.25 | 5.0 | 102 | 108 | 31 | 4 | 13 | 16 | 51 | 12 | 17 | 85 | 90 | 59 | | |

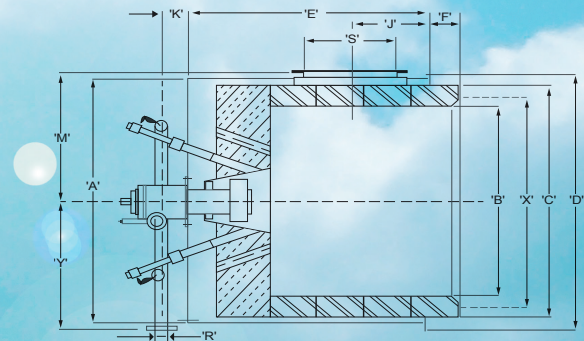
OGH Combustor

The OGH combustor combines PCC's burner with a short refractory-lined air-cooled fire tube to mix fuel and air, initiate a stable flame front and provide a high temperature environment where combustion air is preheated and mixed.

This design provides a controlled environment promoting a short and well-defined flame from the combustor resulting in reduced space requirement for completion of combustion.

OGH combustor designs are available for various heat release and preheated air.

| COMBUSTOR SIZE AND TYPE | HEAT RELEASE Btu/Hr x 10 ⁶ | AIR FLOW (| FLAME LENGTH AT 70% EXCESS AIR (ft) | DIMENSIONS - INCHES | | | | | | | | | | | | | |
|-------------------------------|--|---------------|--|---------------------|----|-----|-------|------|----|----|----|----|----|----|----|----|--|
| | | | | A | B | C | D | E | F | J | K | M | R | S | X | Y | |
| OGH 1 | 4 | 1260 | 3 | 25 | 14 | 20 | 28 | 21.5 | 6 | 12 | 5 | 15 | 3 | 10 | 17 | 15 | |
| OGH 2 | 7 | 2200 | 3 | 28 | 19 | 26 | 33 | 38.4 | 6 | 14 | 7 | 19 | 3 | 14 | 22 | 17 | |
| OGH 3 | 12 | 3780 | 3 | 37 | 27 | 34 | 42 | 42.0 | 8 | 16 | 9 | 22 | 5 | 16 | 30 | 22 | |
| OGH 4 | 16 | 5040 | 1.5 | 44 | 33 | 40 | 50.2 | 49 | 10 | 17 | 9 | 26 | 5 | 17 | 37 | 25 | |
| OGH 5 | 24 | 7560 | 1.5 | 57 | 44 | 53 | 63.0 | 53 | 10 | 20 | 11 | 33 | 6 | 20 | 49 | 32 | |
| OGH 6 | 32 | 10080 | 1.5 | 65 | 51 | 60 | 70.5 | 61 | 10 | 22 | 14 | 36 | 8 | 24 | 55 | 36 | |
| OGH 7 | 50 | 15750 | 1.5 | 78 | 63 | 73 | 84.3 | 77 | 10 | 25 | 14 | 43 | 8 | 30 | 69 | 43 | |
| OGH 8 | 75 | 23600 | 1.5 | 95 | 79 | 88 | 100.8 | 97 | 10 | 29 | 14 | 52 | 10 | 36 | 83 | 52 | |
| OGH 9 | 100 | 31500 | 1.5 | 110 | 90 | 102 | 115.8 | 112 | 10 | 32 | 16 | 60 | 12 | 42 | 97 | 59 | |



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